What is claimed is:

1. A method for treating a movement disorder in a human patient with an implantable neurostimulator, the method comprising the steps of:

detecting a physiological condition characteristic of an episode of the movement disorder;

selectively initiating treatment delivery, thereby delivering a therapy from the implantable neurostimulator to the patient in response to the physiological condition; and

ceasing treatment delivery.

2. The method for treating a movement disorder of claim 1, wherein the physiological condition comprises a neurological event.

3. The method for treating a movement disorder of claim 2, wherein the neurological event comprises an electrographic oscillation representing a tremor.

4. The method for treating a movement disorder of claim 1, further comprising the step of synchronizing the treatment delivery to the physiological condition.

5. The method for treating a movement disorder of claim 1, wherein the therapy comprises an application of responsive electrical stimulation.

6. The method for treating a movement disorder of claim 1, wherein the therapy comprises an application of responsive drug therapy.

7. The method for treating a movement disorder of claim 1, further comprising the step of applying programmed electrical stimulation.

8. The method for treating a movement disorder of claim 1, further comprising the step of delivering programmed drug therapy.

9. A method for detecting an episode of a movement disorder in a human patient, the method comprising the steps of:

receiving a signal with an implantable device, wherein the signal includes information representative of a physical condition characteristic of an episode of the movement disorder;

processing the signal with the implantable device;

analyzing the signal with the implantable device;

detecting an event in the signal with the implantable device, wherein the event represents the physical condition characteristic of an episode of the movement disorder; and

causing the implantable device to perform an action in response to the event.

10. The method for detecting an episode of a movement disorder of claim 9, wherein the step of causing the implantable device to perform an action comprises initiating treatment delivery, thereby delivering a therapy from the implantable neurostimulator to the patient in response to the physiological condition.

11. The method for treating a movement disorder of claim 10, further comprising the step of synchronizing the treatment delivery to the physiological condition.

12. The method for treating a movement disorder of claim 10, wherein the therapy comprises an application of responsive electrical stimulation.

13. The method for treating a movement disorder of claim 10, wherein the therapy comprises an application of responsive drug therapy.

14. The method for treating a movement disorder of claim 10, further comprising the step of applying programmed electrical stimulation.

15. The method for treating a movement disorder of claim 10, further comprising the step of delivering programmed drug therapy.

16. A system for treating a movement disorder in a human patient, the system comprising:

an implantable device having a housing defining a control module including electronic circuitry; and

at least one sensor connected to the electronic circuitry;

wherein the implantable device comprises a detection subsystem adapted to receive sensor data from the at least one sensor;

wherein the implantable device further comprises a therapy subsystem adapted to deliver treatment to the patient; and

wherein the implantable device is adapted to detect in the sensor data a physiological condition characteristic of an episode of the movement disorder; and initiate treatment delivery, thereby delivering a therapy from the implantable neurostimulator to the patient in response to the physiological condition.

17. The system for treating a movement disorder of claim 16, wherein the at least one sensor is located within the housing.

18. The system for treating a movement disorder of claim 16, wherein the at least one sensor is implanted in the patient outside of the housing, and wherein the at least one sensor is connected to the electronic circuitry with a lead.

19. The system for treating a movement disorder of claim 16, wherein the at least one sensor comprises an accelerometer, a temperature sensor, a blood pressure sensor, an orientation sensor, or a drug concentration sensor.

20. The system for treating a movement disorder of claim 16, wherein the at least one sensor comprises a plurality of electrodes.

21. The system for treating a movement disorder of claim 20, wherein the electrodes are adapted to receive electrographic data from the patient.

22. The system for treating a movement disorder of claim 21, wherein the electrographic data comprises an EEG signal.

23. The system for treating a movement disorder of claim 21, wherein the electrographic data comprises an EMG signal.

24. The system for treating a movement disorder of claim 20, wherein the electrodes are adapted to deliver therapeutic electrical stimulation to the patient.

25. The system for treating a movement disorder of claim 16, further comprising an external apparatus.

26. The system for treating a movement disorder of claim 25, wherein the external apparatus comprises a programmer.

27. The system for treating a movement disorder of claim 25, wherein the implantable device further comprises a communication subsystem adapted to transfer data between the implantable device and the external apparatus.

28. The system for treating a movement disorder of claim 16, wherein the implantable device is implanted intracranially in the patient.

29. A method for treating a movement disorder in a human patient with an implantable neurostimulator, the method comprising the steps of:

selectively and automatically initiating treatment delivery, thereby delivering a therapy from the implantable neurostimulator to the patient; and

selectively and automatically ceasing treatment delivery.

30. The method for treating a movement disorder of claim 29, wherein the step of selectively and automatically initiating treatment delivery is performed in response to a command signal from a central processing unit of the implantable neurostimulator.

31. The method for treating a movement disorder of claim 30, further comprising the steps of:

detecting a physiological condition characteristic of an episode of the movement disorder; and

generating the command signal in response to the physiological condition.

32. The method for treating a movement disorder of claim 31, wherein the physiological condition comprises a neurological event.

33. The method for treating a movement disorder of claim 32, wherein the neurological event comprises an EEG oscillation representing a tremor.

34. The method for treating a movement disorder of claim 32, wherein the neurological event comprises EEG activity associated with the movement disorder.

35. The method for treating a movement disorder of claim 31, further comprising the step of synchronizing the treatment delivery to the physiological condition.

36. The method for treating a movement disorder of claim 31, wherein the therapy comprises an application of responsive electrical stimulation.

37. The method for treating a movement disorder of claim 31, wherein the therapy comprises an application of responsive drug therapy.

38. The method for treating a movement disorder of claim 31, further comprising the step of applying programmed electrical stimulation.

39. The method for treating a movement disorder of claim 31, further comprising the step of delivering programmed drug therapy.

40. The method for treating a movement disorder of claim 30, further comprising the step of generating the command signal in response to a programmed schedule.

41. The method for treating a movement disorder of claim 29, wherein the therapy comprises an application of an electrical stimulation signal having a non-pulsatile morphology.

42. The method for treating a movement disorder of claim 29, wherein the therapy comprises an application of an electrical stimulation signal having a substantially sinusoidal morphology.

43. The method for treating a movement disorder of claim 29, wherein the therapy comprises an application of an electrical stimulation signal comprising at least one burst of pulses.

44. The method for treating a movement disorder of claim 43, wherein the at least one burst of pulses has a beginning and an end, and wherein the beginning and the end are ramped to avoid sensory effects in the patient.

45. The method for treating a movement disorder of claim 29, wherein the therapy comprises an application of an electrical stimulation signal having a DC component.